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Signature

June 5, 2006

Date of Signature

Our Case No.: 1391/1561

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: ROBERT J. YATKA et al.

Serial No.: 10/712,114

Filing Date: November 13, 2003

For: METHOD OF CONTROLLING RELEASE OF

N-SUBSTITUTED DERIVATIVES OF

ASPARTAME IN CHEWING GUM AND GUM

PRODUCED THEREBY

Examiner: Arthur L. Corbin

Group Art Unit No.: 1761

## REPLY BRIEF

Mail Stop Appeal Brief - Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

The Appellants herby reply to the Examiner's Answer dated April 6, 2006, which maintains all rejections previously appealed.

## A. Evidence Relied On

It is noted that the listing of references in section 8 of the Answer has one error. The first reference (Nofre et al) should be 5,480,668, rather than 5,460,668.

B. Claims 6, 11, 24-27 and 30-31 are patentable over U. S. Patent No. 5,480,668 (Nofre '668) in view of U.S. Patent No. 4,997,659 (Yatka).

The Answer perpetuates several errors that underlie the improper rejection of claims 6, 11, 24-27 and 30-31 over Nofre '668 and Yatka. On page 3 of the Answer, the Examiner first states that Nofre '668 teaches the combination of alitame and an aspartame derivative in chewing gum. This is an overreaching statement. While Nofre '668 suggests the use of N-substituted derivatives of aspartame in chewing gum, as well as many other food products, the statement on col. 6, lines 16-26, mentions that the N-substituted derivatives of aspartame can be used "in an edible product by themselves, as the only sweetening agent, or in combination with other sweetening agents such as," and then gives a long list of other sweetening agents, one of which happens to be alitame. Thus there is no specific teaching of using N-substituted derivatives of aspartame and alitame in chewing gum. More importantly, as already noted in the Appeal Brief, there is no suggestion of using this combination in place of alitame generally, or of using it in a rolling compound on chewing gum or in panned coating on chewing gum pellets.

However, the Answer goes on to state that because Yatka suggests the use of alitame [the Answer improperly refers to aspartame at this point] in a panned coating or as a rolling compound, "it thus becomes obvious to apply to chewing gum *any* sweetener mixture, which includes alitame, in the manner disclosed by Yatka et al." (Emphasis added.) This position is totally devoid of any consideration of the properties of the various sweeteners, or motivation to substitute one for the other. Further, there is no support articulated in the Answer for this position. This makes clear that the rejection is instead based on an over-generalization that it is always obvious to substitute any mixture of sweeteners for the alitame taught in Yatka.

The Answer argues that there is no disclosed reason to separate the alitame from the aspartame derivative in Nofre '668, but this presumes that that there is a reason to combine the references in the first place, or that Yatka teaches the use of alitame along with another high-intensity sweetener in a dusting compound or pellet coating, neither of which is true.

Rather than giving any support for its position, the Answer instead attacks Appellant's position, on page 4, by stating, "Appellant's conclusion that the use of one sweetener in a particular manner does not mean that it would have been obvious to use other sweeteners accordingly, is without merit. Otherwise, appellant would have us believe that every time a different but similar sweetener is used in appellant's process, such a process would be patentable." This last statement is not Appellants' position, and the attempt to set up this straw man and knock it over does nothing to support the rejection.

The question of whether it would have been obvious to substitute one sweetener for another, or a sweetener mixture for a pure sweetener, must at least take into consideration the properties of the sweeteners and mixtures taught in the prior art at the time of the invention, and the reasons why they were used the way they were used in the prior art. The Answer does not do this. The Appeal Brief points out the differences in properties between alitame and neotame, one specific N-substituted derivative of aspartame called for in claims 30 and 31. It also points out why alitame was used in the manner it was used in Yatka, and that none of those reasons were known or believed to be applicable to N-substituted derivatives of aspartame at the time of the invention. None of this is addressed in the Answer. Instead, the arguments made supporting the rejection are simply that it would always be obvious to substitute a known mixture of sweeteners for a single sweetener. Since there is no explanation of why the prior art would have suggested to one of ordinary skill in the art the desirability of the modification, (see *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992), the rejection is improper and must be reversed.

C. Claims 6, 11, 24-27 and 30-31 are patentable over U. S. Patent No. 5,510,508 (Nofre '508) and Nofre '668 in view of U.S. Patent No. 4,374,858 (Glass) and Yatka.

The Answer makes a minor attempt to at least consider the properties of the prior art teaching of the use of aspartame in the rejection based on Nofre '508, Nofre '668, Glass and Yatka. However, rather than considering all of the properties, or considering those most relevant to its use in chewing gum products, the Answer concludes that because aspartame is similar in some of its properties to N-substituted

derivatives of aspartame, it would have been obvious to substitute N-substituted derivatives of aspartame for aspartame in the prior art.

While Appellants do recognize that there are some chemical similarities between aspartame and N-substituted derivatives of aspartame, the Appeal Brief goes on to point out the different properties of the two sweeteners. Even on a strictly chemical basis, it is noted that neotame includes a dimethylbutyl group not found in aspartame. As to its properties, neotame's lipophilic properties make it more readily soluble in some solvents typically used in food systems. Further, as noted in Nofre '668 itself, Nsubstituted derivatives of aspartame were believed to be more stable than aspartame under common conditions of use for food preparations, including chewing gum. Nofre '668, col. 3, lines 51-61. Thus how aspartame is used in food, and the properties making it used in that way, must be considered in determining whether it would have been obvious to use N-substituted derivatives of aspartame in the same way. Instead, the Answer takes the position that the chemical similarities render "it obvious to apply either type of aspartame to chewing gum in the same manner regardless of the reasons for doing so." (Emphasis added.) Thus the rejection is once again seen to be based on mechanical application of some misunderstanding of the law, rather than considering properties of the product used in the prior art, why it was used, and whether those same properties exist in N-substituted derivatives of aspartame, or were even known at the time of the invention.

## D. CONCLUSION

The Answer does not refute that Appellants have made a novel and nonobvious contribution to the art of controlling the release of N-substituted derivatives of aspartame from chewing gum products. Rather, the Answer further demonstrates that

the references are being combined based solely on hindsight reconstruction of the invention. The Final Rejection should therefore be reversed.

Respectfully submitted,

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